Claims

1. An arrangement and a method for remote energy supply of an electronic information carrier by a base device comprising an acoustic transmitting unit, said information carrier including an electronic information processing unit, an energy supply unit converting mechanical energy of acoustic waves into electric energy, and an information transmitting and/or receiving unit capable of receiving and/or transmitting acoustic waves, and being arranged in an acoustically fixed coupling to a functional article,

characterised in that

said acoustic transmitting unit (3) of said base device (1) and said functional article (4) are arranged in a loose contact connection through a surface-bodily contact,

said acoustic transmitting unit (3) of said base device (1) and said information carrier (5) do not necessarily contact each other,

said acoustic transmitting unit (3) of said base device (1) radiates acoustic energy to enter said functional article (4) on a bodily path through the point of contact between said acoustic transmitting unit (3) and said functional article (4),

said energy supply unit (10) of said information carrier (5), which works preferentially within the resonance range corresponding to the frequency of the entered acoustic waves, draws acoustic energy from said functional article (4),

the electric energy generated by said energy supply unit (10) from the drawn acoustic energy guarantees the energy supply of said entire information carrier (5), and

an information transmission is realised on a bodily-acoustic path between said functional article (4) and said base device (1) and/or another device on the part of said information carrier (5) through said information transmitting (12) and/or receiving unit (11) thereof.

2. An arrangement and a method according to Claim 1, characterised in that

said energy supply unit (10) and said information transmitting (12) and/or receiving unit (11) of said information carrier (5) include components used in common, or are united completely to form a unit (27).

3. An arrangement and a method according to any of Claims 1 and 2, characterised in that

all the elements of said information carrier (5) are arranged on a common base (8, 20).

4. An arrangement and a method according to any of Claims 1 to 3, characterised in that

said information carrier (5) comprises a microsystems engineering dimension and consists of microsystems engineering elements.

5. An arrangement and a method according to any of Claims 1 to 4, characterised in that

said information carrier (5) forms a compact body embedded on all sides, in which all the elements of said information carrier (5) are accommodated.

6. An arrangement and a method according to any of Claims 1 to 5, characterised in that

all the elements of said information carrier (5) are arranged within a capsule (7), and such that said capsule (7), preferably consisting of metal and/or an organic material, such as polymeric plastic of any type, and/or an inorganic material, such as ceramic, glass, cermet, stone, mineral or precious stone and/or composites of any type, forms the information carrier (5).

7. An arrangement and a method according to any of Claims 1 to 6, characterised in that

on the outside of said information carrier (5), there are located at least two metallic points of contact (21), connected in an electrically conductive manner to electronic components of said information carrier (5) and permitting a transmission of both electric energy and information.

8. An arrangement and a method according to any of Claims 1 to 7, characterised in that

on the outside of said functional article (4), there are arranged at least two metallic parts (22), connected in an electrically conductive manner to said metallic points of contact (21) according to Claim 7 and permitting a transmission of both electric energy and information to said information carrier (5).

9. An arrangement and a method according to any of Claims 1 to 8, characterised in that

on the outside of said functional article (4), there is arranged a metallic element (31) having no electric function for the transmission of information or energy, which upon contacting said acoustic transmitting unit (3) of said base device (1), or said base device (1) itself, bridges two contacts (28) thereon and triggers an action thereby.

10. An arrangement and a method according to any of Claims 1 to 9, characterised in that

said information carrier (5) contains information for the identification of said functional article (4) and/or for the description thereof and/or for the description of the state thereof and/or the logistic data thereof and/or the production data thereof, and said information carrier (5) is placed preferably "deeply inside" said functional article (4).

11. An arrangement and a method according to any of Claims 1 to 10, characterised in that

said information carrier (5) contains codes, and said functional article (4) possesses the function of a key, preferably without said functional article (4) being recognisable as a key.

12. An arrangement and a method according to any of Claims 1 to 11, characterised in that

said information carrier (5) is arranged in a piece of jewellery, more particularly, in a ring for a finger forming said functional article (4).

13. An arrangement and a method according to any of Claims 1 to 12, characterised in that

said information carrier (5) is arranged in a functional article (4) configured as a card.

14. An arrangement and a method according to any of Claims 1 to 13, characterised in that

said information carrier (5) is arranged in a vehicle member forming said functional article (4).

15. An arrangement and a method according to any of Claims 1 to 14, characterised in that

communication between various information carriers (5) in various functional articles (4) is realised by means of one or more relay stations.